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(54) SURGING GENERATION PREVENTIVE METHOD
FOR COMPRESSOR

(57) Abstract:

PURPOSE: To surely prevent generation of surging by finding a suction flow rate corresponding to gas molecular weight according to a polytropic head value assumed from an outside diametrical dimension or the rotating speed or the like of an compressor impeller.

CONSTITUTION: Impeller rotating speed of a compressor 1 is supplied to a polytropic computing element 22 from a speed indicator 24 arranged in a driving machine 2. A thermometer 26 is arranged in a gas suction side passage of the compressor 1, and a suction gas temperature Ts is supplied to a molecular weight computing element 23. On the other hand, a thermometer 28 is arranged in a gas delivery side passage, and a delivery gas temperature Td is supplied to the molecular weight computing element 23. Suction pressure Ps or delivery pressure Pd is also supplied to the molecular weight computing element 23. A surging preventive controller 21 carries out operation to correct a polytropic head value according to respective measured data, and finds a suction flow

rate Qs according to gas molecular weight. A signal is generated from a flow rate controller 17 according to the suction gas flow rate Qs, and a control valve 12 is driven through an electropneumatic converter 13, and generation of surging is avoided.

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